WO 2006/057499 PCT/KR2005/003923

```
Korea Research Insitute of Bioscience and Biotechnology
     <110>
              Cattle beta-casein gene targeting vector using homologous
     <120>
              recombination
     <150>
              PCT/KR2004003034
              2004-11-23
     <151>
     < 160>
10
     <170>
              Kopatentin 1.71
     <210>
     <211>
              31
     <212>
              DNA
15
              Artificial Sequence
     <213>
     <220>
              primer for bovine casein gene amplification
     <223>
20
     <400>
                                                                                 31
     attcagtcga gtggaacata aactttcagc c
25
              2
     <210>
     <211>
              31
              DNA
     <212>
              Artificial Sequence
     <213>
30
      <220>
              primer for bovine casein gene amplification
      <223>
               2
      <400>
35
                                                                                 31
     catatgtcga ctgtgagatt gtattttgac t
      <210>
               3
      <211>
               24
40
      <212>
               DNA
      <213>
               Artificial Sequence
```

WO 2006/057499 PCT/KR20			PCT/KR2005/003923
	<220> <223>	primer for hTPO amplification	
5	<400> ggagetga	3 act gaattgctcc tcgt	. 24
10	<210> <211> <212> <213>	4 24 DNA Artificial Sequence	
15	<220> <223>	primer for hTPO amplification	
20	<400> cctgacgo	4 cag agggtggacc ctcc	24
25	<210> <211> <212> <213>	5 23 DNA Artificial Sequence	
	<220> <223>	primer for identification gene targeting	
30	<400> ccacacag	5 ggc atagagtgtc tgc	23
35	<210> <211> <212> <213>	6 22 DNA Artificial Sequence	
40	<220> <223>	primer for identification gene targeting	

PCT/KR2005/003923

22

<400> 6

ccacagaatt gactgcgact gg

	<210>	7	
	<211>	24	
	<212>	DNA .	
	<213>	Artificial Sequence	
5			
	<220>		
	<223>	primer for nested PCR	
10	<400>	7	
10		acc tgtccagaaa gctg	24
	guguoggi		
	<210>	8	
15	<211>	29	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
20	<223>	primer for identification gene targeting	
	<400>	8	29
	ttcactg	cat totagtiging gittigicca	20
25			
	<210>	9	
	<211>	25	
	<212>	DNA	
30	<213>	Artificial Sequence	
	<220>	to the identification game targeting	
	<223>	primer for identification gene targeting	

WO 2006/057499

35

<400> 9

tctaggacca aacatcggct tactt

PCT/KR2005/003923

WO 2006/057499 PCT/KR2005/003923

```
Korea Research Insitute of Bioscience and Biotechnology
    <110>
              Cattle beta-casein gene targeting vector using homologous
     <120>
              recombination
             PCT/KR2004003034
     <150>
              2004-11-23
     <151>
     <160>
              9
10
              Kopatent In 1.71
     <170>
     <210>
              31
     <211>
     <212>
              DNA
15
              Artificial Sequence
     <213>
     <220>
              primer for bovine casein gene amplification
     <223>
20
     <400>
                                                                                 31
     attcagtcga gtggaacata aactttcagc c
25
              2
      <210>
      <211>
              31
              DNA
      <212>
              Artificial Sequence
      <213>
30
      <220>
               primer for bovine casein gene amplification
      <223>
               2
      <400>
35
                                                                                 31
      catatgtcga ctgtgagatt gtattttgac t
      <210>
               3
      <211>
               24
 40
      <212>
               DNA
               Artificial Sequence
      <213>
```

	<220>			
	<223>	primer for hTPO amp	plification	
_	. 4005	2		
5	<400>	3		24
	ggagetga	ct gaattgctcc tcgt		24
	· <210>	4		
10	<211>	24		
	<212>	DNA		
	<213>	Artificial Sequence	e	
			•	
	<220>			
15	<223>	primer for hTPO amp	olification	
	<400>	4		
		ag agggtggacc ctcc		24
20	Corgacyc	ig agggragace cree		
20		•		
	<210>	5	v	
	<211>	23		
	<212>	DNA		
25	<213>	Artificial Sequence	e '	
	<220>			
	<223>	primer for identific	ication gene targeting	
		•		
30	44005	r		
	<400>	5 gc atagagtgtc-tgc		23
	Cuauauay	gc alagagigic igc		
35	<210>	6		
-	<211>	22		
	<212>	DNA		
	<213>	Artificial Sequence	•	
40	<220>			
	<223>	primer for identific	ication gene targeting	

PCT/KR2005/003923

22

WO 2006/057499

<400>

45

ccacagaatt gactgcgact gg

WO 2006/057499 PCT/KR2005/003923

	<210>	7	
	<211>	24	
	<212> <213>	DNA Artificial Sequence	
5	<2132	All Illicial Sequence	
J	<220>		
	<223>	primer for nested PCR	
10	<400>	7	24
	gagacgg	gace tgtccagaaa getg	24
	•		
,	<210>	8	
15	<211>	29	
	<212>	DNA	
	<213>	Artificial Sequence	
	<000\s		
20	<220> <223>	primer for identification gene targeting	
20	\2207	primor for radiative states and the	
	<400>	8	29
	ttcactg	gcat tctagttgtg gtttgtcca	29
25		•	
	<0.10>	0	•
	<210> <211>	9 25	
	<211>	DNA	
30	<213>	Artificial Sequence	
ųΟ	1210	THE CONTRACT SOCIETY	
	<220>		
	<223>	primer for identification gene targeting	
35			
55	<400>	9	× =
	•	acca aacategget taett	25

PCT/KR2005/003923 RO/KR 23.01.2006

		•	
	<110>	Korea Research Institute of Bioscience and Biotechnology	
	<120>	Cattle beta-casein gene targeting vector using homologous recombination	
5	<150> <151>	PCT/KR2004003034 2004-11-23	
10	<160>	9	
10	<170>	Kopatentin 1.71	
	2.0	· 1	
	<211>	31	
15	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
	<223>	primer for bovine casein gene amplification	
	<223>	Diffiles TO DOVINE Case In gene ampirition to	
20		Y	
	·<400>	1	
	atteagte	cga gtggaacata aactttcagc c	31
25		· ·	
-	<210>	2	
	<211>	31	•
	<212>	DNA	
	<213>	Artificial Sequence	
20	\Z 13>	Altiticial ocquence	
30	<220>		
		primer for bovine casein gene amplification	
	<223>	primer for botthe caseth gene amprirodation	
35	<400>	2	
		cga ctgtgagatt gtattttgac t	31
	22.2.31		
	<210>	3	
40	<211>	24	
	<212>	DNA	
	<213>	Artificial Sequence	
	•		

PCT/KR2005/003923 RO/KR 23.01.2006

	<220>		
	<223>	primer for hTPO amplification	
5	<400>	3	
	ggagctga	act gaattgctcc tcgt	24
	<210>	4	
10	<211> <212>	24 DNA.	
	<213>	Artificial Sequence	
	<220>	the LTDO and Life and the	
15	<223>	primer for hTPO amplification	
	<400>	4	
20	cctgacgo	cag agggtggacc ctcc	24
20			
	<210> <211>	5 23	
	<212>	DNA	
25	<213>	Artificial Sequence	
	<220> <223>	primer for identification gene targeting	
	\2207	primer for ruentification gone targeting	
30	<400>	5	•
	ccacacag	ggc atagagtgtc tgc	23
35	<210>	6	
00	<211>	22	
	<212> <213>	ONA Artificial Sequence	
40	<220>	•	
	<223>	primer for identification gene targeting	
	<400°	6	•
45	<400> ccacagaa	6 att gactgcgact gg	22

PCT/KR2005/003923 RO/KR 23.01.2006

5	<210> <211> <212> <213>	7 24 DNA Artificial Sequence	
ວ	<220> <223>	primer for nested PCR	
10	<400> gagacgga	7 acc tgtccagaaa gctg	24
15	<210> <211> <212> <213>	8 29 DNA Artificial Sequence	
20 .	<220> <223>	primer for identification gene targeting	
25	<400> ttcactg	8 cat tctagttgtg gtttgtcca	29
30	<210> <211> <212> <213>	9 25 DNA Artificial Sequence	
	<220> <223>	primer for identification gene targeting	
35	<400> tctagga	9 acca aacategget tactt	25

Sequence Listing

	<110>	Korea Research Insitute of Bioscience and Biotechnology
· :5	<120>	Cattle beta-casein gene targeting vector using homologous recombination
	<150> <151>	PCT/KR2004003034 2004-11-23
.10	<160>	9
	<170>	Kopatent In 1.71
15	<210> <211> <212> <213>	1 31 DNA Artificial Sequence
20	<220> <223>	primer for bovine casein gene amplification
25	<400> attcagto	1 ga gtggaacata aactttcagc c 31
-30	<210> <211> <212> <213>	2 31 DNA Artificial Sequence
35	<220> <223>	primer for bovine casein gene amplification
	<400> catatgt	2 ega etgtgagatt gtattttgac t 31
40	<210> <211> <212> <213>	3 24 DNA Artificial Sequence

	<220>		٠ .				
•	<223>	primer for hTPO	amplification				
				•		•	
	•	•					
5	<400>	.3 ·		• •			. •
	ggagetga	ict gaattgetee teg	t .		-		24
			<i>;</i>		. ·		•
•		•				•	•
	<210>	4				• •	: .
10	<211>	24			•		
,	<212>	DNA	•		•	٠.	
	<213>	·Artificial ·Seque	nce	•	•.		
,				• .		* .	
	<220>						
15	<223>	primer for hTPO	amplification	•			•
	,		•			. '	•
	•	•					
	<400>	4 .					
	cctgacgo	ag agggtggacc ctc	С				24
20			•				٠.
				•			• •
	<210>	5	•			·.	
•	<211>	23					
	<212>	DNA .		•		·	
.25	<213>.	Artificial Seque	nce		•		,
•							
,	<220>						
	<223>	primer for ident	ification gene	e targeting		* .	
						•	,
30	. 100-		-	• •			
	<400>	5					00
	ccacacag	gc atagagtgtc tgc			•		23
•				•			
0.5	010>	0	•				
35	<210>	6					
•	<211>	22 DNA					
	<212>	DNA Astificial Segue	2.				
	<213>	Artificial Seque	nce	•	•		
40	<220>			•			
40		nrimor for ident	ification cons	toractina			
	<223>	primer for ident	ilication gene	taigeting			
		•					
	<400>	6					
45		tt gactgcgact gg					22
40	·	ii gadigogadi yy					د د

	<210>	7
	<211>	24
	<212>	DNA
	<213>	Artificial Sequence
. 5		
	<220>	
	<223>	primer for nested PCR
	· .	
10	<400>	7
	gagacgg	acc tgtccagaaa gctg 24
	<210>	8
15	<211>	29
	<212>	DNA Analificial Company
	<213>	Artificial Sequence
•	<220>	
20	<223>	primer for identification gene targeting
20	\LLU>	primer for raciterroaction gone targetting
٠	<400>	8
٠.		cat totagttgtg gtttgtcca 29
25		
	<210>	9
	<211>	25
	<212>	DNA
30	<213>	Artificial Sequence
٠.		
	<220>	
	. <223>	primer for identification gene targeting
35	٠,	
JJ	· <400>	9.
		cca agratronort tartt 25